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A Recorded Sound Timeline
Compiled by the Recorded Sound Section
Library of Congress

First Recorded Sound
1857 – Édouard-Léon Scott de Martinville invents the phonautograph, a device that traces, but cannot play back sound waves. The intent is to visually represent sound onto soot-covered paper. These "phonautograms" would be successfully played back in 2008 via digital imaging, dating the first true sound recordings to 1857.

Invention of the Phonograph
July 1877 – Thomas Edison's work on a telephone transmitter and the keyboard telephone inspires him to make sketches for a device that will both record and play back sound impulses engraved onto tinfoil. Some months later, John Kruesi, an Edison-employed machinist builds, the first tinfoil phonograph, based on Edison's sketches. A verse of "Mary had a little lamb" is reportedly the first phonograph recording to be made and played back.

Development of the Wax Cylinder
January 1886 – Chichester Bell and Charles Tainter organize the Volta Graphophone Company to control their patents on an improved version of the Phonograph, the Graphophone, which uses engraved, wax-based cylinders in place of tinfoil, allowing for a more permanent recording.

1887 – Prompted by the Bell and Tainter inventions, Thomas Edison, after a decade of neglect of the Phonograph, turns his attention back to the Phonograph. His "New Phonograph" and "Improved Phonograph" (1888) use wax-based cylinders as the recording medium. Wax cylinders would become the first format for commercial recordings. Portable cylinder recorders were used by anthropologists and ethnomusicologists to make field recordings. Jesse Fewkes' 1890 cylinder recordings of the Passamaquoddy Indians in Maine are the earliest known recordings of Native Americans.

Development of the Flat Disc Recording
May 1887 – German-American inventor Emile Berliner is granted a U.S. patent for the Gramophone, a machine to record sound by tracing a lateral groove of even depth—as opposed to the phonograph's vertical "hill and dale" groove—onto a cylindrical drum. Shortly thereafter, a disc replaced the cylinder.

Columbia Records is Born
1888 – The Columbia Phonograph Company is organized as the mid-Atlantic franchise of the North American Phonograph Company. The focus of the company was leasing machines for use as a business dictation device. In November of 1889 the first-known advertisement for Columbia Records appears in a brochure.

Flat Disc Record Appears—The First Format War Begins
November 1894 – Publication of the first list of Berliner Gramophone records for sale begins the first recorded sound format battle. For nearly 20 years ferocious competition existed between the flat record and the cylinder, with the discs becoming predominant in the mid-1910's. Some companies, such as Edison and Columbia, issue recordings on both formats.

Mass Production of Recordings
1902 – Edison and Columbia market molded cylinders—mass-produced recordings from a master mold. Prior to this, commercial cylinders were copied via pantograph, or dubbing. A similar process for discs would be perfected in late 1903.

Victor is Born
October 1901 – The Victor Talking Machine Company is incorporated by Eldridge R. Johnson, following the demise of the Berliner Gramophone Company. In 1929 the Radio Corporation of American would acquire the company, at which time it became RCA Victor.

First Superstar
April1904 – Enrico Caruso's first American recordings are released by Victor. Among them, "Vesti la giubba" from Pagliacci is emblematic of Caruso's arrival as the first superstar of the recording industry.

First Jazz Recording
February 1917 – The first jazz record is made for the Victor Talking Machine Company by the Original Dixieland Jazz Band. Released in May of that year, the two titles "Livery Stable Blues" and "Dixie Jass Band One Step" would begin a torrent of recordings in this new style.

The Rise of Independents
October 1919 – The U.S. District Court rejects Victor's request for injunction in the case of *Victor Talking Machine Co. vs. Starr Piano Co*. Starr Piano of Richmond, Indiana began issuing its first lateral-cut disc records in April 1919 as a challenge to the long-established patent-sharing duopoly held by Victor and Columbia. This decision, upheld by the Supreme Court in 1922, allowed anyone to record in the superior lateral-cut process and paved the way for the many independent companies that flourished in 1920s, including Starr-Gennett, as well as Brunswick, OKeh, Paramount, and many others. These independents would find new markets in rural and ethnic communities, broadening the scope of recorded American popular music.

Better Sound - The Coming of Electrical (Wide-Range) Recording
1920 – The first commercially released electrical recording, one made by the use of a microphone instead of a recording horn, appears on the market: the burial service of a British Unknown Warrior.

1925 – Electrical recording is successfully implemented and introduced by both Columbia and Victor Records. Recordings now encompass a much wider tonal range. The Victor Talking Machine Company introduces the Orthophonic Victrola, a phonograph incorporating a large exponential playback horn, capable of reproducing this wider sonic range. In the face of this technological advance acoustical recordings would quickly become obsolete.

Recorded Sound at the Movies
August 1926 – Warner Bros. and the Vitagraph Studios introduce Vitaphone, the first successful method of mechanically syncing recorded sound to motion pictures. The Vitaphone system was based on a long-playing 16-inch 33 1/3 rpm disc designed for the same playback time as a standard reel of film (maximum of about 11 minutes).

Recording Radio Broadcasts
1928 – Recorded transcriptions for radio programs are introduced as a result of the rise of syndicated programs. Programs could be pre-recorded and pressed onto discs--just as commercial records were--and then distributed to radio stations as syndicated programs. This was an important development for smaller stations that could not afford more expensive live programming. It also gave rise to the DJ, who would play the transcriptions and sometimes introduce in-between program chatter.

1934 – Introduction of the lacquer-coated blank disc makes instantaneous recording practical for broadcast and home recording use. Major networks soon began systematically recording their programming on 16" lacquer-coated aluminum discs that could hold 15 minutes of audio on a side. From 1940-45 glass was used for the base material due to the aluminum shortages of World War II . Recording to lacquer hung on as late as the 1970s when it was replaced entirely by magnetic tape. Lacquer discs, and particularly glass-based lacquers, are among the most fragile of recorded sound formats. Until they can be digitally preserved, much of our recorded broadcast history is at risk of permanent loss.

Stereophonic Sound Recording is Invented
1932 – A patent is awarded to W. Bartlett Jones for a means to record stereophonically, utilizing one stylus and producing one groove with right and left channels on either groove wall. This invention came twenty-five years before stereo recordings would first be sold commercially.

Talking Books for the Blind
1934 – The American Federation of the Blind, in collaboration with the Library of Congress and RCA Victor, issue the first Talking Books, long-playing audiobooks on disc for the sight-impaired.

Surviving the Great Depression
1934 – The American division of Decca Records launches, under the direction of Jack Kapp. The new company's policy was to issue its A-list recording stars such as Bing Crosby, Guy Lombardo, and the Mills Brothers on the budget-priced, 35-cent Decca label. Decca fast-selling tactic forced the established majors to follow suit with quality inexpensive records of their own. Budget-priced discs, and the growth in the use of jukeboxes in the 1930s, helped to save the recording industry from collapse during the Great Depression.

Dawn of Magnetic Tape Recording
1935 – The Magnetophon, a pioneering tape recorder, is introduced at the Berlin State Fair. By 1938 tape recording technology improved sufficiently to meet basic broadcasting standards. It wasn't until after World War II that this technology would begin to render all other methods of capturing sound obsolete.

Multi-track Recording
1940 – The Walt Disney animated feature Fantasia presents the first commercial appearance of a four-track recording derived from eight recording channels. This produced something akin to "surround sound."

Instant, Portable Sound Recording
Early 1940s – Wire recorders come to the fore as the culmination of advances in magnetic recording. Great advances in wire recording would occur before the end of the decade, only to be supplanted by magnetic tape recorders.

High-Fidelity Recording
World War II – Decca Records of Great Britain develops full frequency range recording (ffrr) initially for the purpose of recording and tracking enemy submarines. The boosted frequency range allowed for higher fidelity and more realistic sounding recordings. The improved recording processes gained wide commercial acceptance after the war, particularly after the introduction of the LP disc.

The Switch to Magnetic Tape
1948 – Ampex Corporation introduces high-quality tape recorders and recording tape, and effectively revolutionizes the recording and broadcast industries. Replacing both instantaneous discs and plated masters, tape makes editing possible and greatly speeds production time.

The New Speed Revolution and Another Format War
June 1948 – Columbia records introduces the "Long Playing" unbreakable record. The 12-inch, 33 1/3-rpm disc would become the industry standard until the introduction of the compact disc in the 1983. RCA Victor would answer the challenge the following year with the introduction of the 45-rpm disc and record changer. A consumer in 1949 was faced with the choice between three formats: 78-rpm disc, 33 1/3-rpm disc, and the 45-rpm disc.

Stereo Comes to the Record Store
November 1957 – The first commercial stereo long-play recordings are issued on the Audio Fidelity label.

Tape Recording Miniaturized and Quieted
1963 – Philips introduces a cassette tape intended to replace open-reel tapes. The advent of cassettes and cassette players provided a medium for the introduction of various Dolby systems of reducing noise and hiss, beginning in 1966.

The Fab Four on American Vinyl
January 1964 – "Introducing the Beatles," on Vee-Jay Records, and "Meet the Beatles" on Capitol Records hit the American market.

Traveling Music
1980 – Sony introduces the Walkman, a palm-sized stereo cassette tape player, making it easy for listeners to walk about, travel, and exercise while listening through lightweight headphones.

CDs and Digital Audio and Another Format War
1983 – The compact disc and the compact disc player are marketed by both Philips and Sony corporations. Stereo LPs will eventually lose out to this new, convenient format that provided good sound on relatively inexpensive playback systems.

Digital Encoding
1996 – A U.S. patent is issued for the MP3, a compressed, low bit-rate audio format that has become the most commonly used audio medium.

Digital Miniatures
1999 – iTunes is developed and introduced by Apple Inc. in 2000. Both a media player and library, iTunes allows users to purchase downloads of music, organize, and store the files in numerous ways. In October of 2001 Apple introduces the iPod, a portable player designed to store recorded selections downloaded from the "iTunes Digital Jukebox," which appeared in January of that year.

Major Transitions in the Recording Industry
August 2004 – In the most significant of many corporate mergers acquisitions in the recording industry, Sony Music Entertainment and Bertelsmann Music Group merge, bringing together under one corporate umbrella, after a century of rivalry, Columbia and Victor Records.

2006 – Retail giant Tower Records files for bankruptcy and liquidation, bringing a significant, seemingly long-term change to the sale of sound recordings.